

## CLAIMS

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A1* 1. A system for providing traffic information  
to a plurality of mobile users connected to a network,  
5 comprising:

- 10 (a) a plurality of traffic monitors, each said  
traffic monitor comprising at least a  
detector and a transmitter, said detector  
providing a signal including data  
representative of vehicular movement and  
said transmitter transmitting said  
signals;
- 15 (b) a receiver that receives said signals  
transmitted by said traffic monitors; and
- (c) a computer system interconnected with said  
receiver and said network;
- 20 (d) a mobile user station connected to a  
global positioning system receiver, a  
display, and a communicating device; and
- 25 (e) said computer system, in response to a  
request for traffic information from one  
of said mobile user stations, providing in  
response thereto to said one of said  
mobile user stations traffic information  
representative of said signals transmitted  
by said traffic monitors.

2. The system of claim 1 wherein said traffic  
information transmitted by said computer system is  
30 displayed graphically on said display.

*Sub  
C2* 3. The system of claim 2 wherein said traffic  
information is displayed together with a video image.

35 4. The system of claim 2 wherein said traffic  
information is displayed with a text message.

~~5. The system of claim 2 wherein said computer system has a map database, and said computer system, in response to said request for information, transmits map information representative of a portion of said map database, and said map information representative of said map database is displayed graphically together with said traffic information.~~

4. The system of claim 1 wherein said traffic detector detects vehicular speed.

5. The system of claim 1 wherein at least one of said transmitters transmits directly to said receiver.

6. The system of claim 1 wherein at least one of said transmitters transmits to another traffic monitor.

7. The system of claim 1 wherein at least one of said traffic monitors includes a video camera.

8. The system of claim 7 wherein said detector is a video camera.

9. The system of claim 1 wherein said user provides latitude and longitude information to said computer system.

10. The system of claim 1 wherein said computer system selects said traffic information to provide to said mobile user station based on a signal received from said global positioning system receiver.

11. The system of claim 10 wherein said computer system maintains a traffic information database containing data representative of traffic at a plurality of locations and updates said traffic information

database in response to signals received from said mobile user station.

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14. The system of claim 11 wherein said mobile  
5 user station displays both the location of said mobile  
user station and traffic information graphically on said  
display.

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15. The system of claim 12 wherein said mobile  
10 user station has an input mechanism to select a mode in  
which traffic information is shown on said display.

sub 12  
16. A system for providing traffic information  
15 to a plurality of mobile users connected to a network,  
comprising:

- (a) a plurality of vehicles, each said vehicle  
comprising at least a mobile user station,  
a global positioning system receiver and a  
transmitter, said mobile user station  
20 providing a signal including data  
representative of a location of said  
mobile user station and at least one of a  
speed of said vehicle and an  
identification code of said mobile user  
25 station and said transmitter transmitting  
said signal;
- (b) a receiver that receives said signals  
transmitted by said user stations; and
- (c) a computer system interconnected with said  
30 receiver and said network, said computer  
system, in response to a request for  
information from one of said mobile user  
stations, providing in response thereto to  
said one of said mobile user stations  
35 information representative of said signals  
transmitted by said mobile user stations.

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<sup>16</sup>  
~~24~~. The system of claim <sup>15</sup>~~19~~ wherein said computer system screens data provided by said mobile user stations to determine before updating said traffic information database.

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~~25~~. A system for providing traffic information to a plurality of mobile users connected to a network, comprising:

- 10                   (a) a plurality of mobile user stations, each mobile user station being associated with a display, a global positioning system receiver and a communicating device to allow each of said mobile user stations to send and receive signals;
- 15                   (b) a computer system interconnected with another communicating device and a network, said computer system being capable of sending and receiving signals to and from said mobile user stations;
- 20                   (c) said computer system including a map database and a traffic information database, said traffic information database containing data representative of traffic at a plurality of locations;
- 25                   (d) at least one of said mobile user stations providing a request to said computer system for information together with a respective geographic location of said one of said mobile user stations, and in response thereto, said computer system providing to said one of said mobile user stations information representative of selected portions of said map database and selected portions of said traffic
- 30                   information database based on said respective geographic location of said one of said mobile user stations; and
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5 (e) said one of said mobile user stations displaying graphically on said display information representative of said selected portions of said map database and said selected portions of said traffic information database.

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26. The system of claim <sup>21</sup>~~25~~ wherein said computer system is connected to a plurality of traffic  
10 monitors, and said traffic information database contains data derived from said traffic monitors.

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27. The system of claim <sup>21</sup>~~25~~ wherein said computer system updates said traffic information database  
15 based on data received from said mobile user stations.

23 <sup>28</sup>~~28~~. The system of claim <sup>22</sup>~~26~~ wherein said computer system updates said traffic information database  
20 based on data received from said mobile user stations.

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29. The system of claim <sup>23</sup>~~28~~ wherein said computer system compares data from said mobile user  
stations with said data derived from said traffic  
monitors before updating said traffic information  
25 database.

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30. The system of claim <sup>21</sup>~~25~~ wherein said map database contains longitude and latitude information for locations within said database.

30 27. The system of claim <sup>26</sup>~~30~~ wherein said traffic information database and map database are integrated using said longitude and latitude information.

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32. The system of claim <sup>27</sup>~~31~~ wherein each said mobile user station provides longitude and latitude information to said computer system.

<sup>29</sup>  
~~28~~. The system of claim <sup>21</sup>~~28~~ wherein said computer system transmits information which is displayed as an information banner on said display.

5       <sup>30</sup>  
~~24~~. The system of claim <sup>21</sup>~~25~~ wherein said mobile user stations each have an input mechanism for selecting the mode of displaying information on said display.

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~~28~~. The system of claim <sup>21</sup>~~28~~ wherein said location of said one of said mobile user stations is displayed graphically.

15       <sup>32</sup>  
~~26~~. The system of claim <sup>31</sup>~~26~~ wherein said displayed location of said one of said mobile user stations changes based on movement of said mobile user station.

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~~29~~. The system of claim <sup>21</sup>~~29~~ wherein said computer system screens data provided by said mobile user stations to determine whether said data corresponds to actual traffic conditions.

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~~30~~. The system of claim <sup>21</sup>~~30~~ wherein said computer system compares data provided from said one of said mobile user stations with said map database before updating said traffic information database.